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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/654,949	09/01/2000	Peter Brittingham	ETS-TCA	7078
21269	7590	05/25/2005	EXAMINER	
PEPPER HAMILTON LLP ONE MELLON CENTER, 50TH FLOOR 500 GRANT STREET PITTSBURGH, PA 15219			HARRIS, CHANDA L	
			ART UNIT	PAPER NUMBER
			3714	

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/654,949	<b>Applicant(s)</b> BRITTINGHAM ET AL.	
	<b>Examiner</b> Chanda L. Harris	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 11-17, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-17, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Status of Claims***

In response to the Amendment filed 11/28/03, Claims 9,10, and 18 are cancelled.

Claims 1-8, 11-17, 19 and 20 are pending.

### ***Affidavit Under 37 C.F.R. 1.131***

The affidavit filed on 11/28/03 under 37 CFR 1.131 is sufficient to overcome the Owens reference. A new rejection follows.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 recites the limitation "the test model" in line 2. There is insufficient antecedent basis for this limitation in the claim.

2. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear that the "means for ..." corresponds to elements in the disclosure that are structurally consistent with Applicant's claimed 'system'.

Appropriate correction and/or explanation is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-8, 11-17 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al. (US 5,779,486) in view of Sanchez-Lazer et al. (US 6,000,945).**

1. [Claims 1,5-7,12-14,16]: Regarding Claims 1, 5-7, 12-14, and 16, Ho discloses obtaining a test item (i.e., question entry). See Col.13: 1-4. Ho discloses creating a model (i.e., qschema) by identifying elements of the test item to be variabilized, variabilizing the elements to create variables, and defining the variables and generating a test item variant (i.e., actual question body to be used in the test); and generating a test item variant. See Col.13: 7-16. Ho discloses means for displaying, accepting and retrievably storing (i.e., via schema table) valid test item solutions (i.e., answers) and the accepted test item model. See Col.13: 1-16.

Ho does not disclose expressly using a simultaneous constraint solver.

However, Sanchez-Lazer teaches such in Col.3: 39-51 and Col.7: 1-8. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a simultaneous constraint solver into the method and system of Ho, in light

of the teaching of Sanchez-Lazer, in order to provide a mechanism for automated item selection.

2. [Claims 2,8,15]: Regarding Claims 2,8, and 15, Ho discloses wherein said model creation further comprises specifying constraints (e.g., cm) that define the relationship (e.g., complexity levels) among the variables. See Col.13: 22-32.

3. [Claim 3]: Regarding Claim 3, Ho discloses the step of accepting and retrievable storing the test item variant (e.g., in the tested-questions-storage medium, in schema table). See Col.13: 1-16, 39-41.

4. [Claims 4,11]: Regarding Claims 4 and 11, Ho discloses accepting and retrievably storing (i.e., in the question-storage medium) the test item model. See Col.12: 46-54.

5. [Claim 17]: Regarding Claim 17, Ho discloses the use of PROLOG IV (i.e., prolog) in Col.7: 55-57. Ho does not disclose expressly simultaneously solving test item model constraints using Test Creation Assistant constraint language (i.e., item selection algorithm). However, Sanchez-Lazer teaches such in Col.3: 41-51.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate a test creation assistant language into the method and system of Ho, in light of the teaching of Sanchez-Lazer, to facilitate item selection.

6. [Claim 19]: Regarding Claim 19, Ho discloses wherein variables can be defined by values which are variables (e.g., N1). See Col.13:29-30.

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7. [Claim 20]: Regarding Claim 20, the range of random number are considered to be new variables for which new constraints are defined as needed (e.g., Ni, N2, N3 ...). See Col.13: 17-35.

### ***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Sweitzer et al. (US 6,018,617)  
-test generating and formatting system.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanda L. Harris whose telephone number is 571-272-4448. The examiner can normally be reached on M-F 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jessica Harrison can be reached on 571-272-4449. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Chanda L. Harris  
Primary Examiner  
Art Unit 3714